

Effect of Asana and Pranayama on physiological variables

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■ ABSTRACT

The purpose of the present investigation was to find out the effect of Asana and Pranayama training on physiological variables. To achieve this purpose, thirty boys were selected randomly as subjects. They were assigned randomly into two experimental groups. Group I underwent Asana training and group II underwent Pranayama training group of fifteen each. All the subjects of two groups were tested on selected dependent variable such as VO_{2max} and resting pulse rate before and after the treatment. The data pertaining to the variables in this study were examined by using dependent 't' and analysis of covariance (ANCOVA). Two experimental groups' namely, Asana and Pranayama training groups achieved significant improvement on VO_{2max} and resting pulse rate. In view of improvement in VO_{2max} and resting pulse rate was concerned, the Pranayama training was best training when compared to Asanas training.

■ **Key Words** : Asana, Pranayama, VO_{2max} , Resting pulse rate

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Yoga postures are the physical positions that coordinate breath with movement and with holding the position to stretch and strengthen different parts of the body. Asana practice is the ideal complement to other forms of exercise, especially running, cycling and strength training, as the postures systematically work all the major muscle groups, including the back, neck, and shoulders, deep abdominal, hip and buttocks muscles and even ankles, feet, wrists and hands.

By their very nature, Asanas affect major and minor muscle groups and organs as they simultaneously impart strength, increase flexibility and bring nourishment to internal organs. Although most poses are not aerobic in nature, they do in fact send oxygen to the cells in the body by way of conscious deep breathing and sustained stretching and contraction of different muscle groups.

Our lifestyle and unhealthy habits cause restriction in our breathing pattern. Poor posture (hunching, slouching) reduces lung capacity. This results in fatigue caused by the decrease in blood circulation and insufficient supply of oxygen to the blood cells. We need to breathe slowly and deeply.

Quick, shallow breathing results in oxygen starvation, which leads to reduced vitality, premature ageing, a poor immune system and fatigue. No one can live for more than a few minutes without breathing, yet how many of us are even aware of the importance of proper breathing. On the physiological level, Pranayama was designed by our Yogis by watching nature. They noticed how animals, whose breath was slow and steady, like the elephant and tortoise, lived longer. They also noticed that animals that breathed fast and erratically, like hunting lions or dogs, had a short lifespan. Further, they realised mental control could be achieved by reining in the breath as it linked body and mind. One simple illustration: when one exhales after prolonged breath retention, one goes beyond the habit of the mind, the desperation of the body for a deep breath. One calmly tells one's mind and body to follow one's command (Akthar, 2010).

Pranayama also helps to connect the body to its battery, the solar plexus, where tremendous potential energy is stored. When tapped through specific techniques this vital energy, or prana, is released for physical, mental and spiritual rejuvenation. Regular practice removes obstructions, which